



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-7095; Directorate Identifier 2015-SW-085-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. This proposed AD would require removing from service the tail gearbox center housing (housing) when it has 12,200 or more hours time-in-service (TIS). This proposed AD is prompted by fatigue analysis conducted by Sikorsky that determined the housing required a retirement life. The proposed actions are intended to prevent a crack in the housing, which could lead to loss of tail rotor drive and loss of helicopter control.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-7095; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email [sikorskywcs@sikorsky.com](mailto:sikorskywcs@sikorsky.com).

You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** Kristopher Greer, Aerospace Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email [Kristopher.Greer@faa.gov](mailto:Kristopher.Greer@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

We propose to adopt a new AD for Sikorsky Model S-92A helicopters with a housing, part number (P/N) 92358-06107-043, installed. This proposed AD would establish a life limit of 12,200 hours TIS for the housing by requiring that the housing be removed from service when it reaches 12,200 hours TIS. This proposed AD is prompted by an analysis conducted by Sikorsky on the Model S-92A helicopter for a gross weight increase that revealed higher than expected loads. The housing currently has no life limit. Sikorsky's analysis, which used updated load conditions and updated fatigue analysis software, determined housings that remain in service

beyond 12,200 hours TIS present an unacceptable risk of cracking. This condition could result in loss of tail rotor drive and loss of helicopter control.

### **FAA's Determination**

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

### **Related Service Information**

We reviewed Sikorsky S-92 Maintenance Manual 4-00-00, Temporary Revision No. 4-49, dated April 10, 2015, which establishes a replacement interval of 12,200 hours for housing, P/N 92358-06107-043.

### **Proposed AD Requirements**

This proposed AD would require, before further flight, removing from service any tail gearbox housing, P/N 92358-06107-043, that has 12,200 or more hours TIS.

### **Costs of Compliance**

We estimate that this proposed AD would affect 80 helicopters of U.S. Registry and that labor costs average \$85 per work hour. Based on these estimates, we expect the following costs. Replacing the housing would require 24 work-hours, and parts would cost \$58,000 for a total cost of \$60,040 per helicopter.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Sikorsky Aircraft Corporation:** Docket No. FAA-2015-7095; Directorate Identifier 2015-SW-085-AD.

##### **(a) Applicability**

This AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, certificated in any category, with a tail gearbox center housing, part number (P/N) 92358-06107-043, installed.

##### **(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in a tail gearbox center housing. This condition could result in failure of the tail rotor drive and consequently loss of helicopter control.

##### **(c) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

##### **(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

Before further flight, remove from service any tail gearbox housing, P/N 92358-06107-043, that has 12,200 or more hours time-in-service.

**(f) Alternative Methods of Compliance (AMOC)**

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Kristopher Greer, aerospace engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email Kristopher.Greer@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information**

For service information identified in this AD, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email sikorskywcs@sikorsky.com. You may review a copy of the information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

Issued in Fort Worth, Texas, on August 19, 2016.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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